



Patent  
Attorney's Docket No. 040070-238

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	Reply Under 37 C.F.R. 1.116-Expedited
	)	Procedure-Technology Center 2634
Roosbeh ATARIUS et al.	)	
	)	Group Art Unit: 2634
Application No.: 09/204,370	)	
	)	Examiner: David B. LUGO
Filed: December 4, 1998	)	
	)	Confirmation No.: 5440
For: METHOD AND APPARATUS FOR	)	
CONFIGURING A RAKE RECEIVER	)	

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OCT 20 2003

**AMENDMENT/REPLY TRANSMITTAL LETTER**

Technology Center 2600

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ A Terminal Disclaimer and the ☐ \$55.00 (2814) ☐ \$110.00 (1814) fee due under 37 C.F.R. § 1.20(d) are also enclosed.
- ☐ Also enclosed is/are \_\_\_\_\_.
- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$385.00 (2801) ☐ \$770.00 (1801) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) requests that any previously unentered after final amendments not be entered. Continued examination is requested based on the enclosed documents identified above.
- ☐ Applicant(s) previously submitted \_\_\_, on \_\_\_, for which continued examination is requested.
- ☐ Applicant(s) requests suspension of action by the Office until at least \_\_\_, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.

- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (1809/2809) is also enclosed.
- ☒ No additional claim fee is required.
- ☐ An additional claim fee is required, and is calculated as shown below:

AMENDED CLAIMS					
	NO. OF CLAIMS	HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	ADD'L FEE
Total Claims		MINUS =		× \$18.00 (1202) =	
Independent Claims		MINUS =		× \$86.00 (1201) =	
If Amendment adds multiple dependent claims, add \$290.00 (1203)					
Total Claim Amendment Fee					
If small entity status is claimed, subtract 50% of Total Claim Amendment Fee					
TOTAL ADDITIONAL CLAIM FEE DUE FOR THIS AMENDMENT					

☐ A total fee in the amount of \$ \_\_\_\_\_ is enclosed.

☐ Charge \$ \_\_\_\_\_ to Deposit Account No. 02-4800.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: 10/15/03

By: 

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AMDELOE  
10-28-03  
Patent

Attorney's Docket No. 040070-238

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In re Patent Application of )  
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Application No.: 09/204,370 ) Examiner: David B. Lugo  
Filed: December 4, 1998 ) Confirmation No.: 5440  
For: METHOD AND APPARATUS FOR )  
CONFIGURING A RAKE )  
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OCT 20 2003

Technology Center 2600

**REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In complete response to the final Office Action issued on August 26, 2003,  
reconsideration and allowance of the above-identified application are respectfully requested.  
Claims 1-16, 18, 19, 21, 22, 24, 26, 27, 29 and 31 remain pending.

Claims 19 and 21 are rejected under 35 U.S.C. §103(a) as allegedly being  
unpatentable over the English translation of Japanese Patent No. 10-164011 ("*Kitade*") in  
view of U.S. Patent No. 6,072,807 to *Daudelin* ("*Daudelin*"). This ground of rejection is  
respectfully traversed.

The combination of *Kitade* and *Daudelin* does not render Applicants' claim 19  
unpatentable because the combination does not disclose or suggest all of the elements of  
Applicants' claim 19. For example, the combination of *Kitade* and *Daudelin* does not  
disclose or suggest "a selector, the selector configured to use the input signal, the set of

candidate paths and a quality signal from the RAKE receiver to select a smaller set of candidate paths, the selector comprising  $k \cdot M$  correlators, wherein  $K$  correlators are assigned to each of the selected paths, and the selector configured to use  $k \cdot M$  correlators to generate  $M$  estimates." Moreover, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine *Kitade* and *Daudelin* in the manner described in the Office Action.

To reject Applicants' claim 19, the Office Action asserts that the correlator for search along with other elements of *Kitade* correspond to the searcher of Applicants' claim 19, and that the correlator for trackings along with other elements of *Kitade* correspond to the selector recited in Applicants' claim 19. However, as recognized by the Office Action, *Kitade* does not disclose or suggest a selector which is configured to use a quality signal from the RAKE receiver to select a smaller set of candidate paths.

To remedy the above-identified deficiency of *Kitade* the Office Action cites *Daudelin*. Specifically, the Office Action relies upon the finger assigner 404 of *Daudelin* as allegedly corresponding to the selector recited in Applicants' claim 19. However, *Daudelin* describes the finger assigner 404 as performing functions of a path searcher. *Daudelin* discloses a path searcher which uses an indication from the RAKE receiver of the signal quality of signals assigned to fingers and signals observed by reserved fingers or finger tips. Accordingly, contrary to the assertion in the Office Action, *Daudelin* discloses a searcher which receives a quality signal from the RAKE receiver, and not a selector which receives such a signal. Accordingly, even if one of ordinary skill in the art would

have been motivated to combine *Kitade* and *Daudelin*, the combination would at most result in the correlator for search of *Kitade* receiving a signal quality from the RAKE receiver, and not the correlator for trackings as asserted by the Office Action.

Moreover, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine *Kitade* and *Daudelin* in the manner described in the Office Action. Specifically, it appears that the Office Action is asserting that one of ordinary skill in the art would have been motivated to use the disclosure of providing quality signals to a searcher as disclosed by *Daudelin* to provide a quality signal to a correlator for trackings of *Kitade*. However, *Kitade* does not disclose or suggest providing a quality signal from the RAKE receiver to the correlator for trackings. Additionally, *Daudelin* does not disclose or suggest a correlator for trackings, or that the quality signal from the RAKE receiver should be provided to anything but the searching function disclosed by *Daudelin*. Additionally, the Office Action has not provided any explanation as to why of ordinary skill in the art would have modified the disclosure of providing a quality signal to a searcher of *Daudelin* such that the quality signal is provided to a correlator for tracking, such as that disclosed by *Kitade*. Since *Kitade*, *Daudelin* and the Office Action do not provide any support for providing a quality signal from the RAKE receiver to the correlator for trackings of *Kitade*, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine the disclosures of *Kitade* and *Daudelin* in the manner described in the Office Action.

Since the combination of *Kitade* and *Daudelin* does not disclose or suggest all of the elements of Applicants' claim 19, and since one of ordinary skill in the art would not have been motivated to combine the disclosures of *Kitade* and *Daudelin* in the manner described in the Office Action, it is respectfully submitted that claim 19 is patentably distinguishable over the combination of *Kitade* and *Daudelin*. Claim 21 depends from claim 19, and hence, is patentably distinguishable over the combination of *Kitade* and *Daudelin* for at least those reasons stated above with regard to Applicants' claim 19.

For at least those reasons stated above, it is respectfully requested that the rejection of Applicants' claims 19 and 21 as allegedly being obvious in view of the combination of *Kitade* and *Daudelin* be withdrawn.

Claims 1-10, 13-16, 18, 22, 24, 26, 27, 29 and 31 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of *Kitade*, *Daudelin* and U.S. Patent No. 6,456,827 to *Kubo et al.* ("*Kubo*"). This ground of rejection is respectfully traversed.

The combination of *Kitade*, *Daudelin* and *Kubo* does not render Applicants' claim 1 unpatentable because the combination does not disclose or suggest all of the elements of Applicants' claim 1. For example, the combination does not disclose or suggest "a second stage, the second stage configured to use the first set of more than N paths, the input signal and a quality signal from the RAKE receiver to generate a set of N paths, the second stage generates the set of N paths more frequently than the first stage generates the set of more than N paths." Additionally, it is respectfully submitted that one of ordinary skill in the art

would not have been motivated to combine *Kitade*, *Daudelin* and *Kubo* in the manner described in the Office Action.

To reject Applicants' claim 1, the Office Action asserts that the correlator for search along with other elements of *Kitade* correspond to the first stage of Applicants' claim 1, while the correlator for trackings along with other elements of *Kitade* correspond to the second stage recited in Applicants' claim 1. However, the Office Action recognizes that *Kitade* does not disclose or suggest that the correlator for trackings uses a quality signal from the RAKE receiver. To remedy this deficiency, the Office Action relies upon *Daudelin*. As discussed above, the quality signal disclosed in *Daudelin* is provided from the RAKE receiver to the searcher, and not a correlator for trackings as asserted by the Office Action. Accordingly, for similar reasons to that discussed above with regard to Applicants' claim 19, the combination of *Kitade* and *Daudelin* does not disclose or suggest a second stage which is configured to use a quality signal from the RAKE receiver as recited in Applicants' claim 1. Moreover, for similar reasons to those discussed above with regard to Applicants' claim 19, one of ordinary skill in the art would not have been motivated to combine *Kitade* and *Daudelin* in the manner described in the Office Action. Additionally, it is respectfully submitted that *Kubo* does not remedy either of the above-identified deficiencies of the combination of *Kitade* and *Daudelin*.

Moreover, it is respectfully submitted that the combination of *Kitade*, *Daudelin* and *Kubo* does not disclose or suggest that "the second stage generates the set of N paths more frequently than the first stage generates the set of more than N paths." The Office Action

acknowledges that *Kitade* and *Daudelin* both fail to disclose or suggest such. To remedy this deficiency of the combination of *Kitade* and *Daudelin*, the Office Action relies upon *Kubo*. Specifically, the Office Action relies upon *Kubo's* disclosure of optimizing the frequency of the search operations based on the moving speed of the mobile station.

However, *Kubo* does not disclose a tracker and hence, *Kubo* cannot disclose or suggest that a correlator for trackings such as that disclosed by *Kitade* generates the set of N paths more frequently than the correlator for search generates the set of more than N paths. In other words, *Kubo* does not disclose or suggest a relationship between the generation of paths in a correlator for tracking and a correlator for search, and hence, the changing of the frequency of the searcher disclosed by *Kubo* is not sufficient to reject Applicants' claim 1 which recites a relationship between the generation of paths in the first and second stages.

Since the combination of *Kitade*, *Daudelin* and *Kubo* does not disclose or suggest all of the elements of Applicants' claim 1 and since there is no motivation to combine *Kitade*, *Daudelin* and *Kubo* in the manner described in the Office Action, it is respectfully submitted that the rejection of Applicants' claim 1 as allegedly being obvious in view of the combination of *Kitade*, *Daudelin* and *Kubo* is improper. Claims 2-10 and 13 variously depend from Applicants' claim 1, and hence, are patentably distinguishable over the combination of *Kitade*, *Daudelin* and *Kubo* for at least those reasons stated above with regard to Applicants' claim 1.

Claim 14 is not rendered obvious by the combination of *Kitade*, *Daudelin* and *Kubo* because the combination does not disclose or suggest all of the elements of Applicants'



claim 14. For example, the combination does not disclose or suggest "a selector, the selector configured to use the input signal, the set of candidate paths and a quality signal from the RAKE receiver to select a subset of candidate paths that are used to configure the RAKE receiver, the selector configured to generate a new subset of paths while the searcher is inactive."

As discussed above with regard to Applicants' 1 and 19, the combination of *Kitade*, *Daudelin* and *Kubo* does not disclose or suggest a selector which is configured to use a quality signal from the RAKE receiver to select a subset of candidate paths, and that one of ordinary skill in the art would not have been motivated to combine *Kitade*, *Daudelin* and *Kubo* in the manner described in the Office Action.

The Office Action relies upon *Kubo's* disclosure of the changing of the frequency of the searcher based upon the mobile station moving speed disclosed by *Kubo*, and more specifically, the disclosure that the search operation is not performed until a time period elapses as allegedly disclosing or suggesting that the selector is "configured to generate a new subset of paths while the searcher is inactive." However, as discussed above, *Kubo* does not disclose or suggest both a searcher and a selector, but instead only discloses a searcher. Accordingly, *Kubo* could not possibly disclose a relationship between the selector and the searcher, much less that the selector is configured to generate a new subset of paths while the searcher is inactive. It is respectfully submitted that *Kitade* and *Daudelin* each fail to disclose a relationship between the selector and the searcher recited in Applicants' claim 14.

Accordingly, it is respectfully submitted that the rejection of Applicants' claim 14 as allegedly being unpatentable over the combination of *Kitade*, *Daudelin* and *Kubo* is improper. Claims 15, 16 and 18 variously depend from Applicants' claim 14, and hence, are patentably distinguishable over the combination of *Kitade*, *Daudelin* and *Kubo* for at least those reasons stated above with regard to Applicants' claim 14.

Independent claims 22 and 27 recite similar elements to those discussed above with regard to Applicants' claims 1 and 14, and hence, these claims are patentably distinguishable over the combination of *Kitade*, *Daudelin* and *Kubo* for similar reasons to those discussed above with regard to Applicants' claims 1 and 14. Claims 24, 26, 29 and 31 variously depend from Applicants' claims 22 and 27, and hence, are patentably distinguishable over the combination of *Kitade*, *Daudelin* and *Kubo* for at least those reasons stated above with regard to their respective independent claims.

For at least those reasons stated above, it is respectfully requested that the rejection of Applicants' claims 1-10, 13-16, 18, 22, 24, 26, 27, 29 and 31 as allegedly being unpatentable over the combination of *Kitade*, *Daudelin* and *Kubo* be withdrawn.

Claims 11 and 12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of *Kitade*, *Daudelin*, *Kubo* and U.S. Patent No. 5,987,012 to *Bruckert et al.* ("*Bruckert*"). This ground of rejection is respectfully traversed.

Claims 11 and 12 depend from Applicants' claim 1. As discussed above, the combination of *Kitade*, *Daudelin* and *Kubo* does not render Applicants' claim 1

unpatentable. It is respectfully submitted that *Bruckert* does not overcome the above-identified deficiencies of the combination of *Kitade*, *Daudelin* and *Kubo* with respect to Applicants' claim 1. Accordingly, it is respectfully submitted that the combination of *Kitade*, *Daudelin*, *Kubo* and *Bruckert* does not render Applicants' claims 11 and 12 unpatentable.


For at least those reasons stated above, it is respectfully requested that the rejection of claims 11 and 12 as allegedly being obvious in view of the combination of *Kitade*, *Daudelin*, *Kubo* and *Bruckert* be withdrawn.

All outstanding objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this response, or the application in general, the Examiner is encouraged to contact the undersigned at 703-838-6578.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: 10/15/03

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